

Communication of the Person Who Was Born Deaf-Dumb and At the Same Time Blind, With Others through Smartphone Case Study

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Abstract— The main purpose of doing this project is to help the disabled person and the braille language plays an role in the project, the braille language was invented by Louis Braille[3]. And the robot also plays role in the project thus the human hand is an inspiration for the robot hand. We made investigations on the braille language and the design of robotic hand[2] and text and voice convertor to get the result for the project. And the process includes 5 steps of procedure. as the result of completing the above procedures, we learnt about the basics on robot and braille language. And finally we concluded and made a project that helps the deaf, dumb and blinds to communicate through smart phones.

I INTRODUCTION

This process is suitable for the person who are born with both blind, deaf and dumb[2] help them communicate with others as a normal person using smart phone.

There is a world of deaf, dumb and blind peoples out there. Who are shuffling through their lives, not knowing how wonderful life can be. They have their moments, but they are very unconscious. [3]In order to help them to live a happy life in the smart world certain technologies should be implemented.

Is it possible for a person to be born deaf-dumb and at the same time blind? If so how do they communicate?

Yes, in reality we can see people live like this, but this is rare. One can expect a person who was born deaf, blind and dumb would have other supernatural senses, especially touch and taste. They can able to think and communicate through touch, most commonly by tapping other person hand. The blind, deaf and dumb can able to learn the braille language and the sign language.

Is there any history of a person born deaf-dumb and blind?

One of the best example is HELEN KELLER who was born in the united states in 1880, Helen keller was no ordinary girl,[1] she was blind and deaf as a result she was not able to speak in her whole life it was Anne Sullivan who not only taught her to read and write but also shaped

her character and life. Helen learned braille script which helped her a lot to read and write.



The person communicating with the deaf, blind and dumb person prints large block letters on the other person's palm. Each letter is written in the same location on the person's palm. This is frequently a way for the blind, deaf and dumb to communicate with the public. Here we use a braille translator, the braille translator is a software program that translates a script in to braille cells.

What is braille?

Braille language is a system of writing for the blind, deaf and dumb consisting of raised dots, each dot or group of dots representing a letter, numeral or punctuation mark that are read by touch. It also includes symbols to represent mathematics and scientific character, music, computer notation and foreign languages. The braille form was invented by the French educator who lost his sight at the age of three, braille is used with different languages today in each languages the letters are encoded differently depending on the alphabets.

Is it possible for us to use robots in mobile? If so how to design the robot?

It is possible for us to use robots in mobiles or at the side of the mobile, If a person is blind, deaf and dumb and that person will feel difficult to use the smart phones. So here I use Robots in mobiles, that can write the letters of words on the palm of a deaf, dumb, and blind persons hand...Researchers believe that in the future, the robot in mobiles will help the blind, deaf and dumb person. "It is a way for the blind, deaf and dumb persons to become more independent".

There are large number of individuals who are unable to hear, see and speak. It is very challenging for these

individuals to communicate with others. These peoples are incredibly creative and adept to creating method of communication. To make communication easy for this individuals the portable robotic hand will be developed, which can spell out the words. In designing a robotic finger spelling hand that is easy for a deaf, blind individuals to use. It is essential to design the device with dimensions similar to those of an average human hand.



This will make it easier for the deaf blind users of the hand to effectively understand the letter symbols made by the robotic hand on the palm of the deaf, blind and dumb person. Proper dimension for a robotic finger spelling hand and an appropriate finger mechanism for a robotic hand are both important steps in the creation of a robotic finger spelling hand to help individuals who are both deaf and dumb and blind.

Statistical report on people born with multiple disabilities:

The statistical report on the basis of the 2011 census in India shows that 18.8% of people are born with blindness and 18.9% of people are born with hearing loss and 7.5% of peoples are dumb, these are the statistical report about the people who are born with single disabilities .but according to our concept the number of persons who were born with multiple disabilities that is the person born deaf-dumb and at the same time blind is about 7.9%, and our concept is suitable for this kind of people born with multiple disabilities.

Existing features available for the process:

The existing features available for the process are text to voice converting software which is used to convert the texted form to the speech form and to convert the voice form to text form we use voice to text convertor. The braille translator is used to convert normal text form to braille form and braille form to normal form.

II METHODOLOGY OF THE PROCESS

Communication of blind, deaf and dumb people through smart phones:

Step 1: If a blind, deaf and dumb person want to call some, then that person need to the write the name of the person whom he or she is willing to call in braille language on the screen of the Smartphone.

Step 2: And now the mobile will convert the braille language to normal text through braille translator and connect the call to the person.

Step 3: Now the communication between the blind, deaf, dumb person and the normal person get started.

Step 4: The person on the opposite side will be a normal person who can able to speak and they start their communication and that voice will get recorded in the mobile and through VOICE TO TEXT CONVERTOR the voice will get convert to text form And now the BRAILLE TRANSLATOR is used to convert the text to braille form. The braille translator is used to convert in both way, from braille form to normal text form and from normal text form to braille form.

Step 5: As I said earlier the robot is used at the side of the smart phone , now the text that converted into braille form is now transferred to robot and the robot should write the words on the palm of a blind, deaf and dumb person. Here the braille language should be programmed to the robot that is kept at the side of the mobile. , it is essential to design the device with dimensions similar to those of an average human hand.

Step 6: Now the blind, deaf and dump person will able to understand what the opposite person is communicating. And then, If the blind person need to respond to them then he or she again need to write it on the screen of the smart phone and again the Braille language will get converted to text form through braille translator. Then Through TEXTTOVOICE CONVERTOR the text get converted to voice form i.e (analog form) and it will reaches the opposite person, then again the entire process continuous .Here all the translator that we use are programmed in the smartphone.

III ADVANTAGE OF THE PROCESS

- This process is suitable for the person who are born with deaf-dumb and at the same time blind help them communicate with others as a normal person using smart phones.
- They can able to survive independently in this smart world and can lead a better life.

REFERENCES

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